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| Manufacturer |  | Type testing No. | EAPR-GS-7501/12 |
| | | Date of testing | 16.11.2011 |
| Model | Ion 2 S | Location | Bad Altausee |



EAPR e.V - Marktstr. 11 - D-87730 Bad Grönenbach - Germany

| | | | | |
|-------------------------|--------------------------------|--|--------------------------------|---|
| | Minimum take off weight | | Maximum take off weight | |
| Testpilot | Christian Amon |  | Hannes Tschofen |  |
| Harness | EAPR Equipment | | EAPR Test Equipment | |
| Pilot's take off weight | 80 kg | | 100 kg | |

| | |
|-----------------------|----------|
| Classification | B |
|-----------------------|----------|



| Test-criteria | Minimum take off weight | Evaluation | Maximum take off weight | Evaluation |
|--|----------------------------------|------------|----------------------------------|------------|
| 1. Inflation / take-off - 4.1.1 | | | | |
| Rising behavior | Smooth, easy and constant rising | A | Smooth, easy and constant rising | A |
| Special take off technique required | No | A | No | A |
| 2. Landing - 4.1.2 | | | | |
| Special landing technique required | No | A | No | A |
| 3. Speeds in straight flight - 4.1.3 | | | | |
| Trim speed more than 30km/h | Yes | A | Yes | A |
| Speed range using the controls larger than 10km/h | Yes | A | Yes | A |
| Minimum speed | Less than 25 km/h | A | Less than 25 km/h | A |
| 4. Control movement - 4.1.4 | | | | |
| Max. weight in flight up to 80kg | | - | | - |
| Max. weight in flight 80 to 100kg | Increasing > 60cm | A | Increasing > 60cm | A |
| Max. weight in flight greater than 100kg | | - | | - |
| 5. Pitch stability exiting accelerated flight - 4.1.5 | | | | |
| Dive forward angle on exit | Dive forward less than 30° | A | Dive forward less than 30° | A |
| Collapse occurs | No | A | No | A |
| 6. Pitch stability operating controls during accelerated flight - 4.1.6 | | | | |
| Collapse occurs | No | A | No | A |
| 7. Roll stability and damping - 4.1.7 | | | | |
| Oscillations | Reducing | A | Reducing | A |
| 8. Stability in gentle spirals - 4.1.8 | | | | |
| Tendency to return to straight flight | Spontaneous exit | A | Spontaneous exit | A |
| 9. Behaviour in a steeply banked turn - 4.1.9 | | | | |
| Sink rate after two turns | Up to 12m/s | A | More than 14m/s | B |
| 10. Symmetric front collapse - 4.1.10 | | | | |
| Entry | Rocking back less than 45° | A | Rocking back less than 45° | A |
| Recovery | Spontaneous in less than 3 sec | A | Spontaneous in less than 3 sec | A |
| Dive forward angle on exit | 0° - 30° Keeping course | A | 0° - 30° Keeping course | A |
| Cascade occurs | No | A | No | A |
| Entry | Rocking back less than 45° | A | Rocking back less than 45° | A |
| Recovery | Spontaneous in 3 to 5 sec | B | Spontaneous in less than 3 sec | A |
| Dive forward angle on exit | 0° - 30° Keeping course | A | 0° - 30° Keeping course | A |
| Cascade occurs | No | A | No | A |

| 11. Exiting deep stall (parachutal stall) - 4.1.11 | | | | | | | | | | | |
|--|---|--------------------------|--------------------|---|---|------------|--------------------------|-----------|---|---|---|
| Deep stall achieved | Yes | | | Yes | | | | | | | |
| Recovery | Spontaneous in less than 3 sec | A | | Spontaneous in less than 3 sec | A | | | | | | |
| Dive forward angle on exit | 0° - 30° | A | | 0° - 30° | A | | | | | | |
| Change of course | Changing course less than 45° | A | | Changing course less than 45° | A | | | | | | |
| Cascade occurs | No | A | | No | A | | | | | | |
| 12. High angle of attack recovery - 4.1.12 | | | | | | | | | | | |
| Recovery | Spontaneous in less than 3 sec | A | | Spontaneous in less than 3 sec | A | | | | | | |
| Cascade occurs | No | A | | No | A | | | | | | |
| 13. Recovery from a developed full stall - 4.1.13 | | | | | | | | | | | |
| Dive forward angle on exit | 0° - 30° | A | | 0° - 30° | A | | | | | | |
| Collapse | No collapse | A | | No collapse | A | | | | | | |
| Cascade occurs (other than collapse) | No | A | | No | A | | | | | | |
| Rocking backward | Less than 45° | A | | Less than 45° | A | | | | | | |
| Line tension | Most lines tight | A | | Most lines tight | A | | | | | | |
| 14. Asymmetric collapse (trim speed) - 4.1.14 | | | | | | | | | | | |
| Change of course until re-inflation | trim speed, max 50% collapse | < 90° | Dive or roll angle | 15° - 45° | A | < 90° | Dive or roll angle | 0° - 15° | A | | |
| Re-inflation behavior | | Spontaneous re-inflation | | | | A | Spontaneous re-inflation | | | | A |
| Total change of course | | Less than 360° | | | | A | Less than 360° | | | | A |
| Collapse on the opposite side occurs | | No | | | | A | No | | | | A |
| Twist occurs | | No | | | | A | No | | | | A |
| Cascade occurs | No | | | | A | No | | | | A | |
| Change of course until re-inflation | trim speed, max 75% collapse | 90° - 180° | Dive or roll angle | 15° - 45° | B | 90° - 180° | Dive or roll angle | 15° - 45° | B | | |
| Re-inflation behavior | | Spontaneous re-inflation | | | | A | Spontaneous re-inflation | | | | A |
| Total change of course | | Less than 360° | | | | A | Less than 360° | | | | A |
| Collapse on the opposite side occurs | | No | | | | A | No | | | | A |
| Twist occurs | | No | | | | A | No | | | | A |
| Cascade occurs | No | | | | A | No | | | | A | |
| Change of course until re-inflation | accelerated, max 50% collapse | < 90° | Dive or roll angle | 15° - 45° | A | < 90° | Dive or roll angle | 0° - 15° | A | | |
| Re-inflation behavior | | Spontaneous re-inflation | | | | A | Spontaneous re-inflation | | | | A |
| Total change of course | | Less than 360° | | | | A | Less than 360° | | | | A |
| Collapse on the opposite side occurs | | No | | | | A | No | | | | A |
| Twist occurs | | No | | | | A | No | | | | A |
| Cascade occurs | No | | | | A | No | | | | A | |
| Change of course until re-inflation | accelerated, max 75% collapse | 90° - 180° | Dive or roll angle | 15° - 45° | B | 90° - 180° | Dive or roll angle | 15° - 45° | B | | |
| Re-inflation behavior | | Spontaneous re-inflation | | | | A | Spontaneous re-inflation | | | | A |
| Total change of course | | Less than 360° | | | | A | Less than 360° | | | | A |
| Collapse on the opposite side occurs | | No | | | | A | No | | | | A |
| Twist occurs | | No | | | | A | No | | | | A |
| Cascade occurs | No | | | | A | No | | | | A | |
| 15. Directional control with a maintained asymmetric collapse - 4.1.15 | | | | | | | | | | | |
| Able to keep course straight | Yes | A | | Yes | A | | | | | | |
| 180° turn away from the collapsed side possible in 10 sec | Yes | A | | Yes | A | | | | | | |
| Amount of control range between turn and stall or spin | More than 50% of the symmetric control travel | A | | More than 50% of the symmetric control travel | A | | | | | | |
| 16. Trim speed spin tendency - 4.1.16 | | | | | | | | | | | |
| Spin occurs | No | A | | No | A | | | | | | |
| 17. Low speed spin tendency - 4.1.17 | | | | | | | | | | | |
| Spin occurs | No | A | | No | A | | | | | | |
| 18. Recovery from a developed spin - 4.1.18 | | | | | | | | | | | |
| Spin rotation angle after release | Stops spinning in less than 90° | A | | Stops spinning in less than 90° | A | | | | | | |
| Cascade occurs | No | A | | No | A | | | | | | |
| 19. B-line-stall - 4.1.19 | | | | | | | | | | | |
| Change of course before release | Changing course less than 45° | A | | Changing course less than 45° | A | | | | | | |
| Behaviour before release | Remains stable with straight span | A | | Remains stable with straight span | A | | | | | | |
| Recovery | Spontaneous in less than 3 sec | A | | Spontaneous in less than 3 sec | A | | | | | | |
| Dive forward angle on exit | 0° - 30° | A | | 0° - 30° | A | | | | | | |
| Cascade occurs | No | A | | No | A | | | | | | |
| 20. Big ears - 4.1.20 | | | | | | | | | | | |
| Entry procedure | Special device required | A | | Special device required | A | | | | | | |
| Behaviour during big ears | Stable flight | A | | Stable flight | A | | | | | | |
| Recovery | Spontaneous in less than 3 sec | A | | Spontaneous in less than 3 sec | A | | | | | | |
| Dive forward angle on exit | 0° - 30° | A | | 0° bis 30° | A | | | | | | |
| 21. Big Ears in accelerated flight - 4.1.21 | | | | | | | | | | | |
| Entry procedure | Special device required | A | | Special device required | A | | | | | | |
| Behaviour during big ears | Stable flight | A | | Stable flight | A | | | | | | |
| Recovery | Spontaneous in less than 3 sec | A | | Spontaneous in less than 3 sec | A | | | | | | |
| Dive forward angle on exit | 0° - 30° | A | | 0° bis 30° | A | | | | | | |
| Behaviour immediately after releasing the accelerator while maintaining big ears | Stable flight | A | | Stable flight | A | | | | | | |

| 22. Behaviour exiting a steep spiral - 4.1.22 | | | | |
|---|--------------------------------------|--|--------------------------------------|----|
| Tendency to return to straight flight | Spontaneous exit | A | Spontaneous exit | A |
| Turn angle to recover normal flight | Less than 720°, spontaneous recovery | A | Less than 720°, spontaneous recovery | A |
| 23. Alternative means of directional control - 4.1.23 | | | | |
| 180° turn achievable in 20 sec | Yes | A | Yes | A |
| Stall or spin occurs | No | A | No | A |
| 24. Any other flight procedure and/or configuration described in the user's manual - 4.1.24 | | | | |
| Procedure works as described | | NA | | NA |
| Procedure suitable for novice pilots | | NA | | NA |
| Cascade occurs | | NA | | NA |
| 25. Remarks of testpilot: | | | | |
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